

MYTH AND REALITY OF DRUG INDUSTRY

Standing Committee of the National Convention on
Economic independence & Perspective of Drug industry.
4, Dr. Rajendra Prasad Road, New Delhi-1



COMMUNITY HEALTH CELL

MYTH & REALITY OF DRUG INDUSTRY IN INDIA

Introduction :

In the context of the vast dimensions of the problem of health services and drug requirements for vast multitude of the population in India and the Fifth Plan requirements of drugs from Rs. 360 crores to Rs. 600 crores as worked out by the Planning Commission, public attention be highlighted to the total inadequacy of the drug industry in India to meet this challenge, and to make requirements of drugs as part of national social commitment.

The operative part of the Declaration adopted at the National Convention on Economic Independence and Perspective of Drug Industry held in New Delhi on 21st and 22nd December, 1974, sums up the dimensions of the problems as follows:

“Being conscious of the vast dimensions of the organisation of a national health service;

Being conscious of the total inadequacy of the availability of modern drugs for the vast millions of our countrymen;

Being conscious of the elitist orientation of our health services, medical profession, structure of the drug industry and production and distribution of drugs;

Being conscious of the stranglehold of the foreign sector in the drug industry, which has thwarted growth of a rational drug industry, which has made drugs costlier and scarce, which produces drugs for a small percentage of our population and which thwarts growth of indigenous technology;

This Convention of Scientists, Academicians, Professionals and Parliamentarians on Economic Independence and Perspective of Drug Industry, adopts the following declaration as a programme of action to reorient the health services and the drug industry as an integral part of our social commitment, and to achieve this calls for the broadest mobilisation of public opinion!"

FOCUS ON PUBLIC DEBATE

A National Convention on Economic Independence and Perspective of Drug Industry was held under the auspices of the Institute for Socialist Education, New Delhi, Centre for Social Research, Madras and Forum for Socialist Studies, Bangalore, on the 21st and 22nd December, 1974, at New Delhi. A large number of eminent Scientists, Academicians, Professionals and Parliamentarians participated in this Convention. The Convention adopted a large number of Resolutions which were embodied in the Declaration issued by the concluding Session of the Convention. A large number of Papers were also received.

A Standing Committee on Economic Independence and Perspective of Drug Industry has been set up with Dr. M.L. Gujral, former Principal, Medical Colleges, Lucknow and Srinagar, for follow-up action on the Resolutions adopted by the Convention. The Members of the Standing Committee have already met Shri Fakhruddin Ali Ahmed, the President of India, Shri T.A. Pai, Minister of Industrial Development and Civil Supplies, Shri K.D. Malaviya, Minister of Petroleum & Chemicals, Dr. Karan Singh, Minister for Health & Family Planning, and Shri K.R. Ganesh, Minister of State for Petroleum & Chemicals, and apprised them of the deliberations of the Convention and Declaration adopted. The documents of the Convention have also been forwarded to all the Health Ministers in the States, Parliamentarians, top officials in the Central Government, Academicians and Journalists.

A Seminar was organised by the Central Drug Research Institute, Lucknow, on the 15th and 16th February, 1975. In this Seminar, the top executives from Public Sector Projects, representatives of the National Sector of Drug Industry, besides the top Scientists of the Council of Scientific Industrial Research,

deliberated on the problems and perspective of Pharmaceutical industry. The National Sector which includes the Public Sector and the Indian Sector, is prepared to accept the challenge thrown open to them to play their role in the building up of self-reliance and in meeting the challenge of multi-national pharmaceutical companies.

Another Convention on Economic Independence and Perspective of Drug Industry, with special emphasis on the need for West Bengal was held on 22nd and 23rd February, 1975, at Calcutta. This Convention was sponsored by a cross section of people namely, Scientists, Technologists, Medical Professors, Newspaper Editors, Trade Union Leaders, a number of MPs and MLAs and other public dignitaries. Dr. (Mrs.) Asheema Chatterjee, an eminent Scientist, President of Science Congress, presided over this Convention. Shri K.R. Ganesh, Minister of State for Petroleum & Chemicals, inaugurated the Convention and the Chief Guest was Shri Ajit Panja, Health Minister, West Bengal. This Convention also received a large number of Papers. Eminent Scientists and Academicians etc, like Dr. M.L. Gujral, Dr. L.K. Behl, Dr. M.L. Dhar, Dr. Rannen Sen, Dr. Murari Mohan Mukherjee, Dr. Samar Roy Choudhary and Dr. Chatterjee participated in the Convention. The highlights of this Convention were adoption of the following Papers:

- (a) Approach Paper for R&D Section;
- (b) Working Paper on Production & Standardisation.
- (c) Report on national drug requirements and distribution (Assessment of immediate and long-term needs).

Yet another Regional Convention on Economic Independence & Perspective of Drug Industry is being organised by Social Research Centre in Madras on the 7th and 8th March, 1975. This Convention is in continuation of the National Convention held in Delhi on 21st and 22nd December, 1974 and the West Bengal State Convention held on 22nd and 23rd February, 1975. Shri M. Karunanidhi, Chief Minister, Tamil Nadu will be inaugurating the Convention. Dr. R.V. Rajan has agreed to preside the seminar. Shri K.R. Ganesh, Minister of State for Petroleum and Chemicals, Shri K. V. Raghunatha Reddy, Labour

Minister, Health Ministers of some of the Southern States and various Scientists and Academicians like Dr. M. L. Gujral, Dr. M. L. Dhar, Dr. L. K. Behl, Dr. G. S. Sidhu, Dr. Samar Roy Choudhary, Dr. V.C. Vohra, Dr. B.C. Bhatta, Shri N. Mahalijn-gan, Shri R. Ganesan, Shri P.S. Ramachandran, Dr. A.V. Modi, Dr. M. Natarajan, Dr. K. P. Sarthi, etc. are likely to participate in this Seminar.

The Indian Medical Association is also planning to organise the Seminar in April, 1975 in Delhi to further the role of doctors in solving the health problems of our country. The National Sector Industry is planning to hold a Seminar in Bombay in April or May, 1975 to deliberate on the role which that Sector would play in providing essential medicines to the millions of our people at a reasonable price.

Social Commitment and Drug Industry—Need for Restructuring:

The Drugs and Pharmaceuticals Industry is dominated in this country almost entirely by trade interests and social commitments both in the production and distribution are only marginal. In 1973, the production of bulk drugs was 5200 tonnes. The total value of the bulk drug production stood at Rs. 66 crores and we imported bulk drugs and intermediates worth Rs. 35 crores. The production of formulations in that year was of the order of Rs. 370 crores. The number of bulk drugs used at present is over 300 and the number of formulations run into several thousands. The Multinational Companies have hardly any social commitment. On the contrary, the cardinal principle is exploitation in the form of providing so called latest drugs at exorbitant prices without considering whether they are really needed for masses in this country. The primary objective of manufacture and sale of drugs in any country should be to produce and market such drugs which are required for vast multitude of the population taking into account the broader disease pattern prevalent in the country. In this background the entire Drug Industry needs restructuring.

Myth of Foreign Sector Exposed:

An analysis of bulk drug production reveals that only about 10% of the total 5200 tonnes of bulk drugs was produced in 1973 by the foreign sector. The balance of the bulk drug production was by the national sector comprising of public sector and Indian sector. The foreign sector have been exercising rigid choice by producing low tonnage high rupee value bulk drugs averaging at over Rs. 3.5 lakhs per tonne whereas the Indian and the Public Sector Units produced largely essential high tonnage low rupee value products averaging at about Rs. 1.25 lakhs per tonne in terms of 1973 figures. The contribution of the foreign sector in the production of vital drugs for masses, especially drugs for tropical countries like India has been rather very poor as is evident from the Statement No. 2 annexed.

For the formulation component of this industry in 1973, the foreign sector contributed about 44% of the total output, 6% by the public sector and the remaining by the Indian sector comprising of large, medium and small scale units. The pattern of formulations was such that high money value formulations formed the bulk of the production by foreign companies. These companies also made intensive use of the advantages conferred on their products by brand names.

There have been some difficulties in the past because the COB licences seem to have been given to foreign companies in preference to Indian manufactures. It seems that in many cases, foreign equity holders were permitted to import bulk drugs for purposes of formulations whereas the Indian units which applied for similar import of bulk drugs for formulations were asked to produce bulk drugs before their formulations could be permitted. The foreign sector has made tremendous profit in the past as is evident from Statement No. 1 annexed, which indicates the growth of 9 major foreign sector drug companies.

In a country like India where 80% of the population has not even been exposed to elementary allopathic drugs, the need for sophisticated drugs based on so called latest research is questionable. An analysis of the product mix of a few multinational companies will clearly indicate the pattern of production and the sector of society this is directed to and with what motivation.

For example:

SANDOZ — Markets a large number of formulations at fairly high prices as permutation and combination and barring one or two products, which can be considered useful for endemic conditions, rest are mainly directed to the affluent society. The trading results of the company are a pointer to this.

PFIZERS — Barring a few products like narrow spectrum antibiotics and anti-tubercular products the major thrust is on the sales of high priced sophisticated products like Becosules, Protinex etc. which yield high profits.

CYANAMID — Barring antibiotics, the major product mix consists of high priced sophisticated vitamins preparations sold in fancy packings; even the analysis of the product mix can prove deceptive.

These companies may include a number of products which may be considered as necessary for masses; however, the major emphasis is on the sales of products which are high profit yielding and may not be necessary in the present context.

Examples :

BECOSULES—The sales cross Rs.3 crores per annum. It is high potency vitamin preparation directed to affluent society as is clearly seen from the conditions for which they exhort the doctors to prescribe, namely for alcoholic, for stress conditions, busy executives etc. What is essentially required are formulations which are based on National Formulary of India and could provide a nutritional supplement on a mass scale at reasonable price. One capsule of Becosules could be equivalent to 50 such tablets. Other multinational companies are also marketing similar preparation like Basiton (Sarabhai) Stress Caps. (Cranamide Surbex T (Abbot), Becozyme Forte (Roche) etc.

MARCK
SHARP &

DHOME:— The quantity and the price at which M/s. Marck Sharp & Dhome imported Indo-Methacin from 1967 to 1971 is as follows:—

Year	Quantity Imported	C.I.F. Price at which imported
1967	743	4,543
1968	341	4,554
1969	340	4,570
1970	567.5	4,572
1971	900	4,320

No imports were made by the Company after June, 1972. World prices that prevailed during the above period are not available. During 1973-74 and 1974-75 S.T.C. imported Indo-methacin at weighted average c.i.f. prices of Rs. 1000 and Rs. 648 per Kg respectively. The company was not willing to take drug imported from Poland, but offered supply from its foreign principal of 200 Kgs. at \$ 425 per Kg and additional 400 Kgs. free of cost so that the average c.i.f. price for 600 Kgs. would work out to about Rs. 1062 per Kg.

It is apparent that the formulations making product-range of these companies are oriented to profiteering e.g. Becosules capsules and Santeveni, a tonic, both being the best sellers, priced highest possible and are non-essential formulations. Most of these drug-giants have successfully given an impression that they market a large number of products but if seen carefully, their sales are contributed mainly from non-essential formulations. Rest of the product range contributes a very small percentage of their total turnover.

Packing of their products is also extremely sophisticated considering needs of Indian population; hence adds to inflate their price structure substantially.

The multi-national drugs giants have seen to it that as far as possible, the products marketed by them contain imported bulk material. They have managed to import the bulk material from their parent organisation, or their associates, on the Plea that their products were of standards much higher than those

laid down by the State Pharmacopoeas of even the most advanced nations. The plea is an ideal camouflage to import bulk material at prices exorbitantly higher than those at which similar bulk material is available from other international sources. The glaring example is of Indomethacin of M/s. M.S.D as analysed above. Such practices have helped the multi-national drug houses make additional enormous profits for their parent organisations.

The plea of the multi-national giants that the major portion of their profit goes in research and development is not tenable as these expenses are directed mainly for finding out drugs which meet demands only of the elite population and not the common man.

The multi-national drugs giants are, therefore, in no way committed to serving the social objectives of India. The plunder of scarce resources on their part is evident from the remittance made by them during 1971 and 1972 as indicated in statement No. 3 annexed.

The following foreign drug companies have been operating in the country without obtaining the industrial licences/COB licence

<i>S. No.</i>	<i>Name of the foreign company.</i>	<i>Extent of foreign equity.</i>
1.	M/s. C.E. Fulford (India) Pvt. Ltd.	100%
2.	M/s. Chesborough Ponds Inc.	Branch
3.	M/s. C.W. Carnrick Co. (Asia)	Branch
4.	M/s. John Wyeth Bros.	Branch
5.	M/s. Ethnor Ltd.	57 %
6.	M/s. Dental Products of India Ltd.	55 %
7.	M/s. Nicholas of India Ltd.	Branch
8.	M/s. Anglo Thai Corporation	Branch

Role of Public Sector Undertakings

Statement No. 4 indicates the names of public sector undertakings and other units of the Central Government manufacturing drugs. The same statement also indicates the names of the important bulk drugs manufactured by these units, their installed/licensed capacity and the production attained during past three years. Besides these, there are some units owned by the State Governments namely, Haffkine Institute of Maharashtra Government, Quinine Factories owned by Government of West Bengal and Tamil Nadu etc. All these Units have to achieve a commanding position to play a vital role in catering to the needs of vast millions by providing them quality medicines at reasonable prices.

Indian Drugs and Pharmaceuticals Ltd.

Indian Drugs & Pharmaceuticals Ltd. was incorporated in April, 1961 for setting up two drugs and one surgical instruments manufacturing plants with technical and financial assistance from the Government of USSR.

The Company's sales turnover, during the last three years was as follows :

<i>Particulars</i>	(Figures in Rs. /lakhs)		
	1971—72	1972—73	1973—74
Net Sales	2336	2793	2767

Out of the three operating units of the company, one is producing surgical instruments and the other two are producing antibiotics and synthetic drugs. The performance of the latter two units is as follows :—

Antibiotics Plant, Rishikesh : Actual production during the last four years and the first six months of the current year was as follows :—

<i>Year</i>	<i>Production in milliards</i>	<i>Installed capacity</i>	<i>% utilisation in 1973—74</i>
1970-71	72,294		
1971-72	116,759		
1972-73	120,664	316,800	About 36%
1273-74	121,205		
1974-75	57,472		
(six months)			
1 Milliard—(is equal to) 1 K. G.			

Technical Committee submitted its report to Government in October 1973 on the working of the A.B.P, Rishikesh. This report contains conclusions/suggestions for improving the performance of this plant and covers the following fields :

1. Technological Talent
2. Technology/process employed
3. Quality Control
4. Maintenance
5. Profitability
6. Organisational set-up
7. Delegation of powers.
8. Personnel Policy.
9. Amenities for workers.
10. Production incentive scheme etc.

In April, 1974, Government had issued necessary instructions to the Management of IDPL for implementation of the report. Further action for implementing the Government's instructions is being taken by the Management of IDPL.

Synthetic Drugs Plant : Actual production during the last four years and the first six months of the current year was as follows :-

<i>Year</i>	<i>Production</i>	<i>Installed capacity</i>	(In Tonnes)
			<i>%age utilisation</i>
1970-71	833	1038	80
1271-72	1039	1208	86
1972-73	1166	1455	80
1973-74	1280	1692	76
1974-75	556		
(first six months)			

The proposal of IDPL for expansion during the Fifth Five Year Plan consists of the following:

<i>Project</i>	<i>Capacity proposed</i>	<i>Capital cost Rs. lakhs</i>
Synthetic Drugs Plant Expansion	38 drugs - expansion from 1989 tonnes to 3307 tonnes p.a.	2190.00

Hiacinamide Plant	300 tonnes	838.00
Antibiotics Plant expansion	Streptomycin from 85 T to 120 T: Tetracycline from 25 to 95 T: Ampicillin 10 T: Doxycycline 5 T.	820.00
Pilot Plant studies for new Synthetic Drug Plant		100.00
New formulation unit Tablets 1500 million vials & Capsules 50 million, Syrup 1 lakh litres, Ointment 1Kl.		550.00

Hindustan Antibiotics Limited :

Hindustan Antibiotics Limited was incorporated in 1954 for the production of antibiotics. The production range of the unit includes Penicillin and Streptomycin which are its main items of manufacture in addition to Haymycin, Ampicillin and agriculture antibiotics like Aurecfungin, streptocycline etc. The following table shows production of the main products of this undertaking during the last five years :—

	1969-70	1970-71	1971-72	1972-73	1973-74
Penicillin	60.34	58.23	66.32	81.87	75.12
Streptomycin (Kgs.)	83138	60971	61474	72350	64027
Haymycin (Kgs.)	-	17.0	13.0	3.86	12.359
Vialling (lakhs)	522.91	480.77	520.31	500.23	528.27

The Company's sales during the last five years were as follows :—

	<i>Sales turn-over (Rs. in lakhs)</i>
1969-70	723.50
1970-71	619.93
1971-72	728.01
1972-73	789.29
1973-74	785.30

With the introduction of a new strain and technology obtained from their collaborators for the manufacture of streptomycin sulphate and with the substitution of expensive raw material dextrose by stracp in streptomycin manufacture as a result of a process developed by the Research and Development Wing of Company, it has been possible to achieve increase in production and reduction in the cost of production of streptomycin sulphate. The Company is also making efforts to obtain an improved strain and technology for the manufacture of Penicillin.

The Company have set up a plant for the manufacture of Vitamin C which was commissioned in March, 1973. However, immediately after the commissioning, the refrigeration unit of the plant development mechanical problems, which could be rectified by the middle of 1974. There were also technological/operational problems. However, Sorbitol an interned late product was produced at 5.6 p.m. during 1973-74 and at 18.3 p.m. during April/October 1974. The last two stages of manufacture of Vitamin C are under stabilisation and production runs in different stages are in progress. A quantity of 85 kgs. of Vitamin C during 1973-74 and 54 kgs. during April/October 1974 of Vitamin C have been produced at this plant.

The company is at present implementing (i) 2000 kgs./annum Neomycin Silphate project and (ii) 5000 kgs./annum semisynthetic penicillin project. Neomycin project is held up for technology. Semi-Synthetic Penicillin project based on Collaboration agreement with American Home Products Corporation of USA is under implementation. The two stages in the manufacture of Ampicillin have been completed. Laboratory runs on manufacture of Ampicillin based on imported know-how have been successfully completed and trial production of Ampicillin has been started in August. 1974. Future expansion programme of the company covers the following nine projects during the Fifth Plan period:—

1. Expansion of Penicillin plant from 84 to 160 MMU/annum
2. Penicillin Plant II with a capacity of 140 MMU/Annum
3. Streptomycin Plant expansion from 85 tonnes to 160 tonnes/annum.

4. Semi-synthetic Penicillin expansion from 5 tonnes to 35 tonnes/annum.
5. Erthromycin Plant having a capacity of 19 tonnes/annum.
6. Vitamin C expansion from 125 tonnes to 250 tonnes/annum.
7. Formulation Plant expansion in vialling capacity and formulation capacity including formulation of Vitamin C and Ampicillin.
8. Industrial Enzymes 20 tonnes/annum.
9. Aminnoglycodic Antibiotics expansion to 20 tonnes/annum.

Government Opium and Alkaloids Works, Ghazipur and Government own Factory, Neemuch

These are engaged in the manufacture of Narcotic drugs and are controlled by the Ministry of Finance. These products are not open for licensing in the private sector and are only manufactured by Govt. own factories.

Central Research Institute, Kasuli

This institute is controlled by Ministry of Health and is engaged in the manufacture of Sera & Vaccines.

Installed capacities for various items are being fully utilized. There is no appropriate problems in availability of raw materials though on some occasions certain constraints on the regular supplies of materials like Steam Coal, Diesel Oil, Kerosine Oil, Butane gas and some essential imported chemicals have been felt.

INDIAN SECTOR ACCEPTS THE CHALLENGE

The questions that may arise would be: Will the Indian sector be able to cope with the situation? Would entrepreneurs come forward to shoulder such heavy responsibilities? To illustrate the willingness of the industry to share the burden in bulk drug manufacture, a list showing the number of national sector

entrepreneurs, who are either already in the field or willing to come forward in respect of different drugs :-

<i>Drugs</i>	<i>No. of Entrepreneurs</i>
Paracetamol	51
Metronidazole	5
Di-Iodochlor Hydroxy quinoline	44
Chlorpropamide	6
Methyl Testosterone	1
Sulphonamides	28
Chloroquin	5
Tolbutamide	5
PAS Salts	5
Oxyphenbutazone	4
Aluminium Hydroxide gel	16

All that is needed, therefore, is to provide necessary encouragement to the indigenous manufacturers. To boost production, a large number of intermediates have also been identified for manufacture in the country. This list has been well publicised, time and again.

Research and Development, of course, constitutes the life-blood of any fast developing industry. In regard to drugs, the country can remain in the mainstream of progress only if efforts in Research & Development remain vigorous:

- (1) Most of the large and medium-scale industries should set up facilities for formulations development and process development.
- (2) Units with large turnover should consider setting up facilities for development of new drugs.
- (3) Synthesis of new compounds by itself is not too expensive an operation, but it is the detailed screening that makes new drug research so prohibitively expensive. National Laboratories, therefore, should set up facilities and offer them to private industry for toxicological work for the compounds synthesised by them. It has recently been estimated that in view of the fairly well defined structure activity relationships already established, one

out of 400-500 compounds could be a potential new drug if synthesis is properly planned.

- (4) Large units should have full fledged research centres and should be able to carry out complete screening of new compounds.
- (5) In the field of formulations, more attention should be paid to analytical development and bio-availability studies. Most of the large and medium sized units should set up facilities for this work.
- (6) National Laboratories should involve themselves in new areas of research and development, like fermentation technology for manufacture of essential amino-acid intermediates, newer antibiotics and industrial enzymes. Efforts should also be directed to develop know-how for relatively sophisticated drugs such as prostaglandins.

The Indian Sector have been seriously debating the above issues. They met Shri K.R. Ganesh, Minister of State for Petroleum & Chemicals. They have assured the Minister that they would rise to the occasion and carry out any task assigned to them by the government. There is a right type of climate created in the country today to entrust the task to the Indian Sector to get the objectives laid down in the Declaration of the National Convention held in December 1974 fulfilled. Statement No. 5 indicates excess capacity of foreign sector companies. Government has to take a view to contain this capacity to licenced capacity so that the Indian Sector could grow. The foreign sector have been blocking their growth in the name of available capacity.

Hathi Committee

The Hathi Committee appointed by the Government has already submitted their reports to the Government on the following problems :—

- (a) Quality Control; &
- (b) Report on Drugs and Pharmaceutical Industry on measures for providing essential drugs and common household remedies to the general public, especially in rural areas. The Committee has made the following recommendations:—

- (i) Brand name should be abolished in a phased manner.
- (ii) A beginning should be made for a change-over to generic names starting with the drugs mentioned in the Annexure B to this report. Mostly these drugs are already being marketed under generic names and their generic names are quite elegant.
- (iii) Drugs which are exported may be allowed to bear brand names.
- (iv) All supplies of single ingredient drugs included in Indian Pharmacopoeia for Central and State Government Institutions and local bodies should be tendered and supplies made under generic names. At present, drugs, though tendered under generic names, are supplied under brand names, and this should be discouraged.
- (v) All drugs other than those listed in the Annexure B should bear labels displaying prominently the generic names. Brand names may be shown on labels in a less conspicuous manner.
- (vi) The Drug Controller should, while granting permissions, be requested not to give recognition to brand names of new drugs. New drugs should not be allowed to be marketed under brand names, when first introduced into this country.
- (vii) Multiple drugs combinations often containing drugs, particularly vitamins, in amounts far in excess of what is required are presently marketed in India. The majority of such combinations are irrational. There is a colossal national wastage of drugs because of such combinations. The Drug Control Administration should immediately go into the various drug combinations and take prompt measures to eliminate irrational drug combinations. No firm should be allowed to incorporate excessive quantities of any drug over and above what is required to go into the formulations for therapeutic and prophylactic purposes multiple-ingredient preparations. New types of multiingredient preparations should not be allowed to be marketed hereafter unless they are mentioned in the National

the National Formulary or Pharmacopoeia and approved by the Drug Controller of India. If any amendment of the Drugs and Cosmetics Act and Rules is considered necessary for this purpose, this should be carried out.

- (viii) Non-proprietary names as recommended by W.H.O. from time to time should be adopted.
- (ix) Bioavailability studies are important in cases of a few drugs, although this factor has recently been overplayed not always on rational basis. Facilities should be created in different parts of the country, so that the industry, both large and small-scale, can take advantage of such facilities to plan and conduct bioavailability and pharmacokinetic studies.
- (x) In order to keep the medical profession, particularly the general practitioners, well-informed about New Drugs and also to popularise the generic names, it is essential to take steps immediately,
 - (a) To revise the Indian National Formulary and make it up-to-date,
 - (b) To publish journals on the lines of the prescriber's Journals, U.K., Medical Letter, U.S.A., or Formulary Notes of Sri Lanka. Such publications will have to be under the control of an Editorial Board comprising leaders of the medical profession in the country constituted by the Ministry of Health, Govt. of India.

The Committee is of the view that from legal point of view there should be no difficulty in abolishing the brand names. Abolishing of brand names will entail first the amendment of the Trade and Merchandise Marks Act, 1958 and subsequently the Drugs and Cosmetics Rules.

A periodic review of the impact of this step on the drug industry price and availability of medicines is necessary etc. so as to take suitable corrective measures, if required.

Apart from emphasising the needs for ensuring more rigid and uniform quality control throughout the country, the Committee also recommends the Govt. for early implementation of the recommendations made with regard to measures for provid-

ing essential drugs and common household remedies especially in the rural areas.

While making the above recommendations, the Committee has emphasised that the recommendation regarding the change over from brand names to generic names has to be implemented cautiously and in a phased manner ensuring simultaneously the necessity of enforcing quality control on drugs and in particular the concerned recommendations made in the Interim Report of the Committee on 'Quality Control of drugs'.

The Committee in concluding this report would like to place on record its deep and warm appreciation of the quick and excellent work done by the eminent doctors of the panel and in particular Dr. B.B. Gaitonde, Director, Haffkine Institute, Bombay, who took special interest in this complex problem and finalised the Report in a very short time.

The Report of the Committee on other matters is likely to be received by April, 1975. It is understood that Govt. would be taking policy decisions on the various recommendations of the Hathi Committee as quickly as possible.

CONTAINMENT OF FOREIGN SECTOR- MEASURE BY GOVT.

In the meantime, Government have taken the following measures to regulate the expansion of foreign companies and encourage the growth of Indian Sector:

- (1) the Indian Sector of the Industry is given preference in approval of manufacturing schemes to manufacture of increasing number of bulk drugs through Public Sector Undertakings;
- (ii) industrial licences are usually not issued to foreign firms for producing formulations unless linked with the production of bulk drugs;
- (iii) They are asked to take up production of bulk drugs from more basic stages and to make available a suitable portion of their bulk drugs production to non-associated formulators in the country as a condition for being permitted expansion in capacity or for taking up

new activity. Approximate export obligations are also imposed;

- (vi) progressive reduction of foreign equity participation with corresponding increase in the Indian shareholding is imposed when they are allowed expansion of their manufacturing activities;
- (v) all Companies having a foreign equity exceeding 40% are required to obtain approval of the Govt. under the Foreign Exchange Regulations Act, 1973.

COMMUNITY HEALTH CELL
326, V Main, I Block
Koramangala
Bangalore-560034
India

GROWTH
DRUG INDUSTRY
OF AILE

	<i>Year of Estt.</i>	<i>Initial Capital</i> Rs. In Lakhs.	<i>Capital H in 1972</i>
1. Pfizer Ltd	1950	2	558
2. Bayer India Ltd.	1958	4	360
3. Glaxo	1924	—	720
4. Cyanamid	1947	1.50	70
5. Roche Products Ltd.	1958	10	100
6. Richardson Hindusthan	1964	0.02	70
7. Sandoz	1947	10	150
8. Alkali & Chemical Corporation	1937	—	434
9. Ciba	1947	3	488
		<hr/> 30.52	<hr/> 2950
		<hr/> 30 lakhs	<hr/> 30 crores

Capital Growth (Capital + Bonus + Reserves)
since establishment: 237 times

Statement No. 1

FOREIGN SECTOR
INDIA—AT THE COST
OF HUMANITY

<i>Bonus Issue 72-73</i>	<i>Reserves 1972-73</i>	<i>Turn-over 1972-73</i>	<i>Profits 1972-73</i>
292	654	2438	585
—	322	1320	232
360	728	3096	287
—	394	1060	394
—	—	678	175
20	93	546	50
—	157	1219	117
124	276	2697	248
413	311	2323	196
<hr/> 1209	<hr/> 2935	<hr/> 15377	<hr/> 2284
<hr/> 12 crores	<hr/> 29 crores	<hr/> 154 crores	<hr/> 23 crores
<hr/> 71 Crores:			

706

MYTH

**VITAL DRUGS FOR MASSES—SHARE OF FOREIGN
IN MOST OF**

<i>Sl. No.</i>	<i>Name of the Drug</i>	<i>Unit.</i>	<i>Estimated Demand in 5th Plan</i>	<i>Imports 1973-74</i>	<i>Name of the Manufacturer in India</i>
1.	2	3	4	5	6
1.	Chloramphenicol Palmitate.	T	390	65	Parke Davis Boehringer-Knoll Dey-Se-Chem Mac. Labs.
2.	Tetracycline Hcl. *(includes Chlortetracycline & Dimethyl Chlortetracycline)	T	200	54.02	IDPL HAL Synbiotics *Cyanamid *Pfizer.
3.	Iodochlorhydroxy Quinoline. *(includes di-iode)	T	450*	—	East India Atul BCPW Albert David Synbiotics Hind-Chemicals Unichem Therapeutic
4.	Sulphadimidine. *(6 Sulphas)	T	1010	43.5	IDPL *May & Baker

EXPOSED

SECTOR LESS THAN 8% WITH "NIL" CONTRIBUTION
THE DRUGS :

<i>Capacity approved</i>	<i>Production 1973</i>	<i>Total Imports plus Production (col. 5+8)</i>	<i>Production by foreign sector</i>	
			<i>Quantity</i>	<i>Percentage</i>
7	8	9	10	11
20	11.79			
30	19.58			
53	15.35			
25 T	0.47			
128	47.19	112.19	31.37	28%
25	14.58			
1.5	—			
30 T	7.04			
10	8.63			
5	—			
71.5	30.25	84.27	8.63	10%
112	25.77			
80	38.88			
6	0.29			
—	0.38			
7.2	0.64			
7.2	0.15			
25	6.68			
—	—			
237.4	72.79	72.79	Nil	—
1000	328.81			
210	0.04			

1	2	3	4	5	6
**(320 Tonnes for five Sulphas)					**Cibatul
5.	Analgin.	T	400	219.09	IDPL
6.	Piperazine & Its Salts.	T	111	—	IDPL
7.	Acetyl Salicylic Acid (Aspirin)	T	1900	—	Alta Martin & Harris Indosal Andra Sug- ars (L.I.) G.M. Swamy (L.I.)
8.	Thiacetazone.	T	70	—	Bengal Im- munity Bio-Evans Chemo- Pharma Unichem Albert David Suneeta IDPL IPCL.
9.	Para-amino Salicylic acid/Sodium Para-amino salicylate (PAS & its Salts).	T	1000	—	IDPL Pfizer Bio-Evans Bio-Synth Wander H. Chemi- cals (L.I.) A.M. Raja.

7	8	9	10	11
320	—			
1530	328.85	372.35	.04	.01%
400	136.72	355.81	Nil	—
115	66.53	66.53	Nil	—
960	744.90			
300	76.92			
100	—			
500	—			
90	—			
1950	821.82	821.82	Nil	—
25	—			
30	—			
25	1.30			
12	14.98			
0.6	0.06			
30	10.11			
5	8.71			
—	—			
127.6	35.16	35.16	Nil	—
150	135.90			
110	119.33			
120	56.06			
100	51.16			
300	135.82			
400	—			
80	—			
1260	498.27	498.27	119.33	24%

1	2	3	4	5
10.	Isonicotinic Hydrazide T (INH)	265	—	Bengal Im- munity Cal. Chem- icals. Chemo- Pharma CIPLA Bio-Evans Synbiotics IDPL BCPW Pfizer Suneeta Warner Hindustan Albert David.
11.	Dapsone (D.D.S.). T	30	—	Burroughs Well- come BCPW B.I. Albert David.
12.	Chloroquin Phos- phate.	T 150	48.06	Bayer Bengal Immuni- Suneeta IDPL (L.I.) Themis (L.I.) Steelcrete (L.I.)
13.	Primaquin Phos- phate.	T 1.5	0.26	—

6	7	8	9	10
20	1.47			
—	—			
35	26.55			
10	0.13			
9.96	11.72			
27	—			
20	—			
1.6	0.06			
80	50.31			
90	6.24			
50	—			
<u>343.02</u>	<u>96.48</u>	96.48	50.31	52%
10.8	7.09			
6.9	1.07			
—	—			
—	—			
<u>17.7</u>	<u>8.16</u>	8.16	7.09	87%
12	10.32			
10	2.63			
18	2.25			
80	—			
48	—			
50	—			
<u>218</u>	<u>15.20</u>	63.26	10.32	16%
—	—	0.26	Nil	—

1.	2.	3.	4.	5.	6.
14.	Diethylcarbamazine citrate (DCC)	T	45	—	Burroughs Wellcome IDPL UNI-UCI
15.	Phenobarbitone Sodium (Ephedrine Hcl/Theophylline)	T	34	0.02	IDPL
16.	Phthalyl Sulphathiazole	T	150	121.99	M.S.D. IDPL Ciba-Geigy May & Baker.
17.	Pencillin G	MMU	780	0.5	IDPL HAL Alembic Standard.
18.	Streptomycin.	T	825	51.94	IDPL HAL Synbiotics Alembics.
19.	Tetanus Anti-toxin.	MU	30,000	0.81	Bengal Immunity Bio-Evans Dey's Medical Chowgule

7.	8.	9.	10.	11.
2	6.61			
30	—			
24	1.04			
56	7.65	7.65	6.61	87%
15	9.18	9.2	Nil	—
3.5	—			
00	—			
50	—			
53.5		121.99	Nil	—
140	56.23			
84	80.65			
100	57.71			
85	52.93			
409	247.52	248.02	Nil	—
85	24.50			
170	71.23			
62	82.46			
20	1.66			
337	179.85	231.79	Nil	—
—	6201.53			
—	4686.00			
—	—			
—	—			

1.	2.	3.	4.	5.	6.
					BCPW Haffkine.
20.	Diphtheria Toxoid	M		—	Bio Evans.
21.	Tetanus Toxoid	Doses	32	—	Bio Evans. BCPW Glaxo Bengal Immunity.
22.	Insulin.	MMU	3,000	150.00	Boots.
23.	Sulphacetamide Sodium	T	80	—	IDPL East India B.I. Albert David.

Foreign Sector Companies.

7.	8.	9.	10.	11.
—	187.64			
—	1687.00			
	<u>12762.17</u>	12762.98	Nil	—
—	340			
—	5145 Lit.			
—	17.39			
—	—			
—	1497			
	<u>6999.39</u>	6999.39	Nil	—
1500	898.03	1048.03	898.03	86%
50	0.8			
18	5.70			
—	—			
—	—			
68	6.50	6.50	Nil	—

(i) Tonns = 2964.09 233.70 7.8%

(ii) MMU = 14059.21 Nil Nil

(iii) M Doses = 6999.39 Nil Nil

PLUNDER OF SCARCE RESOURCES
Remittances made by the Foreign Sector Drug
Companies :

Sl. No. 1.	Name of the Foreign Company 2	Remittances (Rs. lakhs)	
		1971 3	1972 4
1.	Alkali & Chemical Corporation of India	34.63 (1970-71)	32.20 (1971-72)
2.	Anglo French Drug Co. Ltd.	0.60	0.60
3.	Bayer (India) Ltd.	N.A.	22.53
4.	Beecham (India) Pvt. Ltd.	6.57	28.48 (1972-73)
5.	Boehringer Knoll Ltd.	1.37	1.71
6.	Boots Company (India) Ltd.	6.34	6.35
7.	Burroughs Wellcome and Company (India) Pvt. Ltd.	7.55	9.44
8.	Ciba Geigy of India Ltd.	35.88	23.54
9.	Cyanamid India Ltd.	24.10	24.10
10.	E. Merck (India) Ltd.	0.97	1.73
11.	Glaxo Laboratories (India) Ltd.	32.82	62.1 (1971-72)
12.	Johnson & Johnson of India Ltd.	5.10	10.38
13.	May and Baker Ltd.	30	30
14.	Merck Sharp and Dohme of India Ltd.	21.20	26.20 (1971-72)
15.	Parke Davis Ltd.	16.51	26.25 (1971-72)
16.	Pfizer Ltd.	68.20	68.21
17.	Reckitt and Colman of India Ltd.	9.25	14.30 (1971-72)
18.	Richardson Hindustan Ltd.	3.85	3.85
19.	Roche Products Ltd.	16.80	16.53
20.	Sandoz (India) Ltd.	9.27	7.35
21.	Wyeth Laboratories Ltd.	4.19 (1971-72)	8.24 (1972-73)
22.	Abbott Laboratories Ltd	22.65	Nil
23.	Anglo Thai Corporation	15.40	6.57
24.	G.W. Oarnrick & Co.	—	0.18

1.	2.	3.	4.
25. Chesborough Pond		20.87	20.60
26. Cooper Laboratories		Nil	Nil
27. Dental Products Ltd.		0.44	0.29
28. Ethnor Ltd.		N.A	Nil
29. C. E. Fulford		N.A	Nil
30. Indian Schering Ltd.		3.33	3.94
		(1970-71)	(1972-73)
31. John Wyeth Bros.		40.74	34.19
		(1971-72)	(1972-73)
32. Nicholas of India Ltd.		3.92	7.24
			(1971-72)
33. Smith Kline & French		27.26	Nil
34. Laboratories Grimault Ltd.		2.85	Nil
			(1971-72)
35. Roussel Pharmaceuticals Ltd.		N.A	Nil

PRODUCTION OF THE PUBLIC SECTOR UNDERTAKINGS

Sl. No.	Name of the item	Unit	Installed/licensed Capacity	1971-72	Production during 1972-73	1973-74
1.	2.	3.	4.	5.	6.	7.
1. Indian Drugs & Pharmaceuticals Ltd.						
(a) Anti-biotics Plant Rishikesh						
1.	Penicillin & its Salts	Mlrd.	137,200	64824	77425	63356.44
2.	Streptomycin Sulphate	"	85,000	29157	26339	20360.70
3.	Tetracycline	"	22,800	13055	12016	14652.80
4.	Oxytetracycline	"	25,000	7856	4461	11088.64
5.	Nystatin	"	46,800	1867	423	679.85
(b) Synthetic Drugs Plant, Hyderabad						
1.	Para Phenitidine	Tonnes	350	—	40.46	61.46
2.	Phenacetin	"		193.83	108.17	132.68
3.	Sulphaguanidine	"	250	199.2	233.08	275.48
4.	Sulphadimidine	"	500	217.25	364.88	296.87
5.	Sulphanilamide	"	150	169.04	95.09	76.85

1	2	3	4	5	6	7
6.	Sulphacetyl & its Sodium Salt	"	50	26.78	19.82	7.24
7.	Vitamin B1	"	60	14.92	27.62	30.32
8.	Vitamin B2	"	5	1.82	1.39	1.82
9.	Folic Acid	"	2.5	1.18	1.16	2.37
10.	Sodium PAS	"	150	72.84	105.04	123.22
11.	Analgin	"	200	77.7	79.47	156.95
12.	Amidopyrine	"		7.05	2.44	2.66
13.	Piperazine & its salts	"	50	36.1	34.7	61.45
14.	Diethyl Carbamazine Citrate.		30	6.95	0.61	—
15.	Nicotinamide	"	20	2.34	13.73	14.67
16.	Paracetamol	"	85	1.03	10.66	8.73
17.	Phthalyl Sulphacetamide	"	—	0.37	3.27	0.84
18.	Phenobarbitone & its Salts.	"	10	8.6	10.6	10.08
19.	Thiacetazone	"	10	0.96	2.84	9.26
20.	Sulphamethizole	"	—	0.97	0.11	1.26
21.	Acetazolamide	"	—	0.120	—	—

1.	2.	3.	4.	5.	6.	7.
2. Hindustan Antibiotics Ltd.						
1.	Penicillin	MMU	84	66.32	81.87	75.54
2.	Streptomycin	Kgs.	90,000	61474	72350	63972
3.	Hamycin	Kgs.	250	13.00	6.747	7.28
4.	Aureofungin)	Within overall installed		Nil	Nil	Nil
5.	Anti amoebin)	capacity.				
6.	Vitamin C	Tonns	125	—	—	85.5 kgs.
3. Govt. Opium and Alkaloid Works Gbazipur and Govt. Opium Factory, Neemuch						
1.	Codeine & its salts	Kgs.		68*.0	4512*.69	4200*.14
2	Morphine & its salts	"		332.86	340.2	313.41
3.	Dionine I. P.	"	Not	661.918	638.8	678.7
4.	Narcotine & salts	"	available	696.65	661.73	711.15
5.	Papervine & salts.	"	(Production as per demand)	—	—	—
6.	Cotarine Hydro	"		7.18	6.9	9.2
7.	Thebaine	"		1.4	—	—
8.	Papaveratum	"		—	—	0.050

1	2	3	4	5	6	7
9.	Opium Powder & Cake „ (medicine)			3984.47	2971.46	23762.08
10.	Crystophne „			N.A.	N.A.	N.A.
4. Central Research Institute, Kasauli.						
	Sera & Vaccine			N.A.	N.A.	N.A.
			*includes imports			
			1971—72	2799.45	kgs.	
			1972—73	1249.84	kgs.	
			1973—74	1000	kgs.	

COMMUNITY HEALTH CELL
225, Vaidya Chattram
Kodanagala
Bangalore-560034
India

EXCESS CAPACITY OF FOREIGN SECTOR COMPANIES **Blocking Growth of Indian Sector :**

Sl. No.	Name of the Company :	Item of Production	Unit	Licensed Capacity	Production 1973
1	2	3	4	5	6
1.	Burroughs Wellcome	Bephenium Kydronaphthoate Cyclizine Hcl D.C.C. Isoprenaline Sulphate Paracetamol Succinyl Choline-Chloride Zince Undeylemate	T Kgs. T Kgs. T Kgs. Kgs. Kgs.	5 250 2 100 3 5 200	9.99 392.30 6.612 252.42 0.868 53.70 259.77
2.	May & Baker Ltd.	Metronidazole Promethazine Hcl Promethazine 8-chlorotheophylline Li-iodochloro Lydroxy Quinoline Neptal	Kgs Kgs Kgs Kgs Kgs Kgs	602 500 300 4200 136	7662 2055 461 4573 272
3.	Roche Products	Dehydroamotine Vitamin A	Kgs MMTU	95 15	19.0 26.79

Sl. N.	Name of the Company	Item of Production	Unit	Production 1973		
				Licensed Capacity	Production	1973
1	2	3	4	5	6	
4.	Pfizer Ltd.	Chlorpropamide	T	1.5	9.08	
		Oxytetracycline	T	9	33.79	
5.	Glaxo Labs.	Beta Ionone	T	60	100.07	
		Calcium Sennosides	T	3	2.29	
6.	Wyeth Lab. Ltd.	Methyl Testosterone	Kgs	44.40	73	
7.	Cyanamid Lab.	Tetracycline	T	10	18.23	
8.	Ciba of India Ltd.	Sulphonnamides	T	95	81.69	
		Nepresol	Kgs	500	637	
		Crude Quinine	Kgs	2850	4618	
		Antrenyl	Kgs	415	369	
9.	Marck Sharp & Dhome	Vitamin B12	Kgs	72	123.60	
10.	Bayer India Ltd.	Chloroquin Phosphate	T	4	10.32	
		Entodon	Kgs	200	NIL	
11.	Searle India Ltd.	Aldetone	Kgs	28	41.9	
12.	Hoechst	Tolbutamide	T	36	65.54	
13.	Wander Ltd.	PAS & its salts	T	120	135.82	

1	2	3	4	5	6
14.	Synbiotics	Streptomycin	T	62	80
15.	Suhrid Gei y	Tanderil Xylocaine	T Kgs	6 1000	7.23 3051
16.	Geoffrey Manners & Co.	Al-hydroxide	Gelt	216	323
17.	Cibatul Ltd.	Sulpha Drugs	T	160	N.A.
18.	Atul Products Ltd.	Menadione Bisul- phate	Kgs	150	366.4
19.	Sarabhai M. Chemicals	Vitamin	CT	120	261
20.	Cipla	Diosgenin 16-D-hydropre- gnelone Testosterone	Kgs Kgs Kgs	2400 1200 120	2200 100 —

Price Rs. 1.50